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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,315	04/09/2001	Hiroshi Inoue	10873.688US01	7111

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EXAMINER

WINTER, GENTLE E

ART UNIT PAPER NUMBER

1746

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/829,315

Applicant(s)

INOUE ET AL.

Examiner

Gentle E. Winter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) 4-8, 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 16, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant remarked: “non of the references discloses an electrode plate and lead that are bonded by an ultrasonic horn and an anvil with an uneven circumferential surface”. Applicant continued to explain that an improved connection follows from use of the claimed method. Since applicant’s invention is claimed as a battery, and not the method of using the apparatus that includes the ultrasonic horn and anvil, or even the method of using the ultrasonic horn and anvil, the claim is not distinguished from the prior art of record. As such, the arguments are not persuasive. Further, because it is unclear what additional structure is imparted by the use of the claimed apparatus, the amendment fails to distinguish the claim from the prior art of record as applied. It is noted that if the product exhibits features that are distinct from the prior art of record, a showing of actual experimental comparative data may be helpful in overcoming the rejection.

Claim Objections

2. Claims 18 and 19 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, the claims do not add any structure to the battery electrode, but rather describe the apparatus that is used to make the electrode. Since the electrode is indistinguishable from the applied art, providing details as to the machine used to

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construct the electrode does not further distinguish the electrode. The claims are properly rejected with the base claim from which they depend.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 4,865,932 to Masuda et al (Masuda).
2. Masuda reads on claims 1 as follows, Masuda and claim 1 recite a battery electrode comprising an electrode plate (see e.g. column 8, line 49 *et seq.*) a lead bonded to the electrode plate, wherein the entire surface of the lead opposed to the electrode plate is bonded ultrasonically to the electrode plate. See e.g. column 8, line 49 *et seq.*
3. Claims 1, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese publication number 63040254 ('254).
4. The '254 reference reads on claim 1 as follows; both recite an electrode plate (referred to as a "substrate" in '254) a lead (tab) is bonded to the electrode plate, wherein the entire surface of the lead opposed to the electrode plate is bonded ultrasonically to the electrode plate (ultrasonic vibration horizontal to the electrode substrate). The '254 reference does not appear to

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disclose an edge portion, thus the reference, based on the abstract, apparently does not support an anticipation rejection.

5. Claims 1, 16, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese publication number 63040252 ('252).

6. The '252 reference reads on the claims as follows, '252 and claim 1 recite a battery electrode comprising an electrode plate (electrode) a lead (tab) is bonded to the electrode plate, wherein the entire surface (cover the current correcting tab) of the lead opposed to the electrode plate is bonded ultrasonically (horizontal ultrasonic vibration is applied to the tab to weld to the sinter) to the electrode plate. The lead is disclosed to be bonded to an edge portion (is formed over the whole area and the edge of the tab is completely welded).

7. Claims 1-3, 16, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese publication number 03201367 ('367).

8. The '367 reference reads on the claims as follows, '367 and claim 1 recite a battery electrode comprising an electrode plate (electrode) a lead (3) is bonded to the electrode plate (2), wherein the entire surface (figure 2) of the lead opposed to the electrode plate is bonded ultrasonically (horizontal ultrasonic vibration is applied to the tab to weld to the sinter, see arrow above element 4) to the electrode plate. The lead is disclosed to be bonded to an edge portion (element 2).

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9. Claims 1-3, 16, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent No. 4,591,087 to Frasch.

10. Frasch reads on the claims as follows, Frasch and claim 1 recite an electrode plate (10) a lead bonded to the electrode plate (12), wherein the entire surface of the lead opposed to the electrode plate is bonded ultrasonically to the electrode plate (12b). With specific respect to claim 2 and 16 it is noted, for the record, that the meaning ascribed to “three dimensional porous metal body” is understood in the context of the specification. See for instance references in the Background section of the disclosure and the associated drawing, namely figure 6. The three dimensional porous metal body is illustrated in figure 4 as element 10 and 12 and further the relevant associated text. Figure 3 and relevant associated text discloses bonding is at the edge portion. The rocking motion in figure 4 and relevant associated text guarantees that the entire surface of the electrode plate is patterned by applying pressure. It is noted that since the claimed electrode is indistinguishable from the prior art of record, limitations disclosing characteristics of the device used to fabricate the electrode will not impart structure.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

2. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gentle E. Winter whose telephone number is (571) 272-1310.

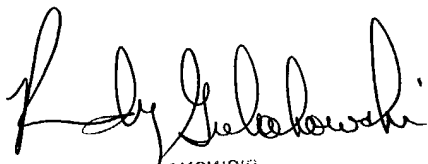
The examiner can normally be reached on Monday-Friday 7:00-3:30.

4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

5. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 273-1310.

Gentle E. Winter
Examiner
Art Unit 1746

February 19, 2004


RANDY GULAKOWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700